

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-5. Canceled.

6. (Currently Amended) Radar apparatus comprising a main body including structure to move the apparatus along the ground, a ~~part~~casing rotatable in relation to the main body and to support a transmitter and a receiver, a power source provided with a control unit to control the apparatus, a transmitter unit electrically connected to the transmitter to generate and transmit radar pulses and a sampler unit electrically connected to the receiver to receive reflected radar pulses, wherein the ~~receiver and transmitter support~~ casing supports the transmitter unit, sampler unit and an A/D converter included in the sampler unit, and the power source and control unit are located in the main body and are electrically connected to the transmitter unit and sampler unit via a slip-ring arrangement, in which radar signals in digital form are conveyed via the slip-ring arrangement.

7. (Previously Presented) Radar apparatus according to claim 6, wherein the transmitter unit is supported by the transmitter.

8. (Previously Presented) Radar apparatus according to claim 7, wherein the sampler unit and the A/D converter are supported by the receiver.

9. (Previously Presented) Radar apparatus according to claim 6, wherein the transmitter unit comprises analogue high frequency equipment.

10. (Canceled).

11. (Previously Presented) Radar apparatus according to claim 6, wherein the transmitter is a transmitter antenna.

12. (Previously Presented) Radar apparatus according to claim 6, wherein the receiver is a receiver antenna.

13. (Previously Presented) Radar apparatus according to claim 6, wherein the transmitter is configured to send electromagnetic waves into the ground below to generate said radar pulses.

14. (Previously Presented) Radar apparatus according to claim 13, wherein the receiver is set to convey the reflected radar pulses, after conversion, to the control unit via the slip-ring arrangement, and the control unit includes a memory to store the converted pulses as radar data.

15. (Previously Presented) Radar apparatus according to claim 14, wherein the radar data includes polarization information